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HANDY

GENERAL EARTHWORK

TABLES.

By J. H. WATSON BUCK, M. Inst. C.E.

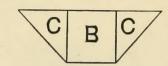
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HANDY GENERAL

THE UNIVERSITY
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By J. H. WATSON

66 FEET CHAIN.



625.12 B85h

To find th

itting or Heights of Embankment.
ent of the Central Part, one foot in width for one Chain in length (66 feet).

Two slopes \(\frac{1}{4}\) to 1, \quad \(\text{,} \quad \text{,} \quad \te

ent one chain in length; multiply **B** by the width of formation in feet; multiply **CC** by ultiplier given below; add together the two results.

MULTIPLIERS.	MULTIPLIERS.	MULTIPLIERS.	MULTIPLIERS.	MULTIPLIERS.
S. One Two Slopes. 2\frac{1}{2} \tau to I 5 IO 12 12 12 12 12 12 12 1	One Two Slope Slope		15 to 1 3.25 6.5 17 to 1 3.75 7.5	One Two Slopes. 2\frac{3}{2} \text{ to I } 4.75 9.5 2\frac{5}{2} \text{ to I } 5.75 11.5
·	Q	•		

&c., &c.

A	В	CC	Α	В	CC	A	В	oc	Α	В	CC	Α	В	CC	Α	В	CC	A	В	CC	Α	В	CC	A	В	CC
-	Cubic	Cubic		Cubic	Cubic		Cubic	Cubia		Cubic	Cultin		Cubic	Culi		C.P.	C 1:		G 1:							
Ft.		Yards.	Ft.	Yards.		Ft.	Yards.		Ft.	Yards.	Cubic Yards.	Ft.	Cubic Yards.	Cubic Yards.	Ft.	Cubic Yards.	Cubic Yards.	Ft.	Cubic Yards.	Cubic Yards.	Ft.	Cubic Yards	Cubic Yards.	Ft.	Cubic Yards.	Cubic Yards.
0.00	0.00	0.00		22'00		18.00					445'5	36.00	88.00	792.0	45.00	110,00	1237.5	54.00	132.00	1782.0	63.00	154'00	2425.5	72'00	176.00	
:25	0.61	0.04		22.61	52.3		44.61			66.61	453.7	'25	88.61	803.0	'25	110.01	1521.3	.52	132.91	1798.2	*25	154.61	2444.8	.25	176.61	3190.0
.50 .75	1.83	0.12		23.83	22.1		45.83		*75	67.83	462.2	·50 ·75	89.22	814'1		111.83			133.83		:50	155.22	2464'1		177.22	
1.00	2.44		10.00	24'44		19.00			28.00	68.44	479'1	37.00		836.6				22,00	134'44	1848.6	64.00	122.03	2483°5 2503°0	72:00	177.83	3234'3
.25	3.02	0.06	.25	25'05	64.5	*25	47.05	226.2	*25	69.05	487.6	'25	91.02	847.9	'25	113.05	1307.2	.25	135.02	1865.4	25	157.05	2522.6		179'05	
.20	3.66			25.66	67.4		47.66			69.66	496.4	.20	91.66	859.4		113.66			135.66		.20	157.66	2542'3	'50	179.66	3301.3
.75 2.00	4.27	2'44		26.88	70.6	20.00	48.27	211.4	29.00	70.80	505.0	.75 38.00	92.27	870'9	75	114.27	1335'6	.75	136.27	1899.3	.75	158.27	2562'1	.75	180.27	3323.8
.25	5.20	3.00	.25		77:3		49.20			71.20	522.7	.25	93.20	894.1	'25	115.20	1364'3	-25	137.20	1910.4	05.00	120.20	2581.9 2601.8	74.00	181.20	3346.4
.20	6,11	3.85	.20	28.11	80.8	.20	20,11	256.8	.20	72'11	531.8	.20	94.11	905.8		116.11			138.11				2621.8	'50	182.11	3301.8
75	6.72	4.61	75	28.71	84'4	'75	50'72	263.1		72.72	540.8	.75	94.72	917.6	.75	116.43	1393.3	'75	138.41	1968.1	.75	160'71	2641.8	.75	182'72	3414.6
3.00	7'33	5.49 6.45		29°33	91.7	51.00	51.33			73'33	549'9	39.00	200	929.5	48'00	117.33	1408.0	57.00	139.33	1985.5	66.00	161.33	2662.0	75.00	183.33	3437.4
.20	8.54	7.48		30'55	95.5		52.22			73'94	568·5	·25	95°94 96°55	941.4		117.94			139.94			161.94	2682.1		183.94	
'75	9.19	8.59	.75	31.19	99.3	'75	53.16	289.1		75.16	577.7	.75	97.16	965.6	'75	119,19	1452'3	.75	141'16	2038.0	.75	163,16	2722.8	.75	185'16	3506.5
4.00	9.77			31.77	103.3	22.00	53.78	295.8	31,00	75'77	587.3	40'00		977.7	49'00	119.77	1467'2	58.00	141.78	2055.7	67.00	163.77	2743'2	76.00	185.77	3529.7
.25	11.00	11.00		32.38			54.38			76.38	596.7	.25	98.38	990.0	'25	150.38	1482.3	.25	142.38	2073.2	.22	164.38	2763'7	*25	186,38	35530
	11.61			33.00			55.60			77.00	615'9	.50 .75		1002'3		151.00			143.60				2784.3	.20	187.00	3576.3
	12.22					23.00				78.22	625.8	41.00	100.55	1027'2	50.00	121'00	1527.8	50.00	144.22	2127.2			2805.0	75.00	187.60	3599.7
'25	12.83	16.8	'25	34.83	124'1	'25	56.83	330.3	.25	78.83	635.5	'25	100.83	1039.8	.25	122.83	1543'1		144.83				2846.5		188.83	
:50	13.44	18.2		35'44			57.44			79.44	645.5		101.44			123'44			145'44				2867.4	.20	189.44	3670.4
	14.66			36.05		75 24'00	58.66		.75 33.00	80.05	655.3	75	102'05	1005'2	.75	124'05	1574.0	.75	146.05	2181.7	.75	168.05	2888.4	75	190.02	3694'1
	15.27			37.27			59'27				675.6	'25	103.52	1000.8	51 00	125.27	1602.1	'25	147 27	2218.3	09.00	160.37	2909.5		191.52	
.20	15.88	25.8		37.88		.20	59.88	366.8	.20	81.88	685.7			1103.8		125.88			147.88				2951.8		191.88	
	16.49			38.49		.75	60'49	374'3	.75	82.49	996.I			1119.8		126.49		. '75	148.49	2255.3	.75	170.49	2973'0	'75	192'49	3789.8
	17'11 17'72			39.11		25.00	61.11		34.00	83.11	706.5					127'11			149'11				2994'4			
	18.33			40.33			62.33		.20	83.72 84.33	727.4		105.45	1143 1		127.72			149'72				3015.8		193'72	
'75	18.94	36.7		40.94			62.94		.75	84'94	737.9		106.94		.75	128.94	1700'4		150.94				3058.9		194 33	
8.00	19.22	39.1				56.00			35.00	85.22	748.6	44.00	107.55	1183.0	53.00	129.55	1716.2	62.00	151.55	2349.0	71.00	173.55	3080.2	80.00	195.55	3911.0
	20.16			42'17			64.16		.25	86.19	759'3	.25	108.19	1196.6	.52	130.19	1732.8	.22	152'16	2368.0	.25	174'16	3102.3			
	20.77			42.78			65.38			86·77 87·38	770'I		108.77	1210.1		130.22			152.77				3124'0			-
-/3	30	-	13	73 37	- 52 3	13	5 30	137 2	13	0/ 30	1010	73	109 30	1223	/3	131 30	1705 5	/5	155 30	2400 2	15	1/5 30	3146.0			3 -3

To find the cubical content of a Cutting or Embankment of any length, add together the figures in Columns B corresponding to the depths of the Cutting or heights of the Embankment for each chain length, with the proportions due to fractions of a chain, as given below, and multiply their sum by the width of formation in feet. Adopt the same course with regard to Columns CC, multiplying the sum by the proper multiplier for the slope or slopes. Add together the two results. If the two slopes differ in inclination, the figures for each must be added separately, and each sum multiplied by its own multiplier, the two results being then added to that obtained from Column B.

Column B.

For portions less than 66 ft. in length, the result requires modifying as follows:—Move the decimal point two figures to the left, and multiply by the length in links.

Note.—In sidelong ground, a horizontal equating line must be drawn to give the height.

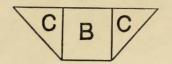
N.B.—The table can be used for compound slopes.

RTHWORK TABLES.

625,12 B858

BUCK, M. Inst. C. E.

100 FEET CHAIN.



Column A contains the Depths of Cutting or Heights of Embankment.

To find the total content of Cutting or Embankment 100 feet in length; multiply B by the width of formation in feet; multiply CC by the proper multiplier given below; add together the two results.

MULTIPLIERS.	MULTIPLIERS.	MULTIPLIERS.	MULTIPLIERS.	Multipliers.	MULTIPLIERS.	Multipliers.	MULTIPLIERS.
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	One Slopes. 1\frac{3}{4} \text{ to I} & 3.5 & 7 & 8 & 8 & 9 & 9 & 9 & 9 & 9 & 9 & 9 & 9	$\begin{bmatrix} 2\frac{1}{2} \text{ to I} & 5 & 10\\ 2\frac{3}{4} \text{ to I} & 5.5 & 1I\\ 3 \text{ to I} & 6 & 12 \end{bmatrix}$	\$\frac{1}{8}\$ to I \$\frac{0.25}{9}\$ to I \$\frac{0.25}{1.25}\$ \$\frac{0.5}{2.5}\$ \$\frac{1}{2}\$ \$\frac{0.25}{2.5}\$ \$\frac{0.25}{2.5}\$	7 to I 1.75 3.5 I to I 2.25 4.5		One Slope. Two Slopes. 2\frac{3}{8} to I 4.75 9.5 2\frac{5}{8} to I 5.25 10.5 2\frac{1}{8} to I 5.75 11.5
			&c.,	&c.			

_																										
A	В	CC	Α	В	CC	A	В	CC	Α	В	CC	Α	В	CC	A	В	CC	Α	В	cc	A	В	cc	Α	В	CC
_			-	<u> </u>	G 11		0.11	-		~		-			-											7
Ft.	Cubic Yards.	Cubic Yards.	Ft.	Cubic Yards.	Cubic Yards.	Ft.		Cubic Yards.	Ft.	Cubic Yards.	Cubic Yards.	Ft.	Cubic Yards.	Cubic Yards.												
0.00	0,00	0,00		33'33	75.0	18:00		300'0	27:00	100.00		26:00	3.00		45.00			E4:00	200'00		63:00			72:00	266.66	
.25	0.02	0.06		34.56			67.59			100,05	687.4			1216.7	13 00	167.20	1895.9		200.05			234.59			267.59	
.20	1.85	0'23		35.18				316.8		101.85				1233.5			1916.8		201.85				3733.5		268.21	
.75	2.77	0.21	'75	36.11	88.0			325'4		102.76				1250.2			19380		202.77				3762.9	.75	269.44	4900'4
1,00	3.69	0.92			92.5				28.00	103.40	725'9							55.00	203.69	2800.0			3792.4	73.00	270.36	4934°I
.25	4.62	1'45	*25	37'95	97.2		71.59			104.62		'25	137'95	1284.2	'25	171.59	1980.6	'25	204.62	2826.4	'25	237'95	3822'1	'25	271'29	
.20	5:55	2.08	:50	38.88	102'1		72.51			105.24	752.1			1302.1		172.51			205.24		.20	238.88	3852.0		272.22	
.75	0.47	2.83	75	39.80				361.5		106.47	765.2			1319.2			2023.6		206.47				3882'0	'75	273'14	5036.1
2.00		3.69	11.00	41.66	112'1				29.00	107'41				1337'1	47.00	174.00	2045.4	20.00	207.40	2903.7	05.00	240.74	3912.0			
.20	9.56	5.79		42.57				379°5		108.33	791.9			1354.7		174.98			208.32			241.66			274.98	
.75	10.18	6.98		43.20				398.6		110.18	819.4			1390.3			2111.0		210.12			243.20	3972.4		275.92	
	II.II	8.32			133.3				30.00			30.00	143 31	1408.3	48.00	177.77	5133.3	57.00	211.10	3008.0	66.00	243 30	4033.4	75,00	277.77	21/20
.25		9.77	'25	45.36		*25	78.69	418.0		112.03	847.1	'25	145.36	1426.4	'25	178.70	2155.6	'25	212.03	3034.7	'25	245.36	4063.8	'3'00	278.69	5246'I
	12.94			46.29		.20	79.62	428.0	.20	112.95	861'4			1444.7			2177'9		212.96			246.29			279.62	
	13.88			47.21	150'4	'75	80.22	438.0	.75	113.88	875.3			1463'0	'75	180.55	2200'4	'75	213.88	3087.9	.75	247'21	4125'4	.75	280.54	5312.8
	14.80		13.00		156.2	25,00	81.48	448'1	31.00	114.80	889.8	40'00	148.14	1481.4	49.00	181.47	22230	28.00	214.81	3114.7	67.00	248.14	4156.4	76.00	281.48	5348.0
	15.43			49.06		.52	82.39	458.3		115.4	904'2			15000		182.39			215.45			249.06			282'39	
	16.66			20,00		:50	83.33	468.8		116.66	918.8			1518.6			2268.6		216.66				4218.6	.20	283.33	5418.6
	17:59			20.01	175.0		84.24			117.28	933.2			1537.6			2291'6		217.58				4250.0	'75	284.24	5454'1
	18.52			52.77	181.2		86.11	489.8	32.00	118.21	962.9												4281.4		285.18	
	20.36				194'7	.50	87.03	200 4		120.36	978.0			1575'5			2338.0		219'44				4312.9		286.11	
	21.59				201.4		87.95			121,50	992.9	-		1613.9		187'95			220,36			253.69 254.62		.20	287.03 287.96	5501 2
	22'21			55.22	208.4	24.00	88.88	233.3	33.00	155,53	1008.3	42.00	155.24	1633,3	21.00	188.88	2408.3	60,00	222,51	3333.3	60.00	224.22	4408.3	78.00	288.88	5622.2
	23'14				215.3	.25	89.80	544.4	25	123'14	1023.6	.25	156.47	1652.7	.25	189.81	2431.9	*25	223'14	3361.1		256.47		*25	289.80	2660.4
	24.06		.20	57.39	222'4		90.73				1038.9			1672.4		190.73			224.06			257.39			290.73	
.75	24'98	42°2		58.32			91.65			124.98		'75	158.32	1692'1		191.65			224.98				4504.2		291.65	
	25.92				236.9						1070'4							91,00	225'92	3445'4	70'00	259'26	4537.0			
	26.85			60.18			93.21			126.85				1731.9		193.25			226.85				4569'4		293.21	
50	27.77	52.1			252'I		94.44			127.77				1752'1			2551.9		227.77				4602.0		294'44	
	28.69			62.03				613.8			1118.0			1772'3		195.36			228.69			262.03			295.33	
	30.24				275.6	20 00	97.21	627'0	35 00	129 62	1134 2								229.62		/1.00	262.95	4667.4	90.00	296.59	5925.9
	31.46				283.2		98.14			130.22	1166.8			1833.2		198.13	2625.4		230.24		25	264.80	4700'4			
	32.39				201.6		99.06				1183.3			1854.5			2675.0		231.47			264·80 265·73				
h	000		, 5	,,,		,3	,,,,,,,	7	,3	-3- 39	55	,5	- 3 /4	-0,54 2	13	- 99 00	-0/30	13	-32 39	3543 0	13	-03 /3	4/00/			

To find the cubical content of a Cutting or Embankment of any length, add together the figures in Columns B corresponding to the depths of the Cutting or heights of the Embankment for each 100 ft. length, with the proportions due to fractions of 100 ft. as given below, and multiply their sum by the width of formation in feet. Adopt the same course with regard to Columns CC, multiplying the sum by the proper multiplier for the slope or slopes. Add together the two results. If the two slopes differ in inclination, the figures for each must be added separately, and each sum multiplied by its own multiplier, the two results being then added to that obtained from Column B.

For portions less than 100 ft. in length, the result requires modifying as follows:—Move the decimal point two figures to the left, and multiply by the length in feet.

Note. - In sidelong ground, a horizontal equating line must be drawn to give the height.

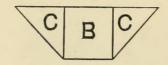
N.B.—The table can be used for compound slopes.

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HANDY GENERAL

By J. H. WATSON

66 FEET CHAIN.



Column A contains the Depths of Cutting or Heights of Embankment.

Cubical Content of the Central Part, one foot in width for one Chain in length (66 feet). CC

Two slopes $\frac{1}{4}$ to 1,

To find the total content of Cutting or Embankment one chain in length; multiply B by the width of formation in feet; multiply CC by the proper multiplier given below; add together the two results.

MULTIPLIERS.	MULTIPLIERS.	MULTIPLIERS.	MULTIPLIERS.	MULTIPLIERS.	MULTIPLIERS.	MULTIPLIERS.	MULTIPLIERS.
Two Slope. Two Slopes. Slopes. Slopes. Slopes. Two Slopes. Slopes. Two Slopes. S	I to I 2 4 11 to I 2.5 5	0	.1.	1 to I 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25			

A B COLA																										
A	В	CC	Α	В	cc	Α	В	cc	A	В	00	A	В	CC	А	В	oo	A	В	CC	A	В	oc	Α	В	CO
Ft.	Cubic Yards.	Cubic Vards.	Ft.			Ft.	Cubic	Cubic Yards.	Ft.	Cubic Yards.	Cubic Yards.	Ft.	Cubic Yards,	Cubic Yards.	Ft.	Cubic Yards,	Cubic Yards.	Ft.	Cubic Yards.	Cubic Yards.	Ft.	Cubic	Cubic	Ft.	Cubic	Cubic
0.00			0.00	22'00				198.0	27'00		445.5	36.00			45.00			54:00			62:00	Yards	Yards. 2425'5		Yards. 176'00	Yards
.25	0.61	0.04		22.61	52.3		44.61		'25		453.7	'25	88.61	803.0	.25	110.61	1251.3	25	132.61	1798.5			2444.8		176.61	
.20	I '22	0.12		23.55	22.1		45'22		.20		462'2	.20		814.1	.20	111'22	1265'1			1815.1			2464'I		177'22	
.75	1.83			23.83				214.8	.75	67.83	470.5	.75		825.3		111.83				1831.8	.75	155.83	2483.2	.75	177.83	32347
1.00	2°44 3°05	0.06	10.00	24'44	61.1		47.05		28.00	68.44	479'1	37.00	90'44	830.0			1293'0		134'44	1848.6	64.00	156.44	2503.0			
.20	3.66			25.66	67.4		47.66		.20		496.4	.50	1	847.9			1307.2			1865.4 1882.3			2522.6 2542.3		179'05	
75	4.27	1.87		26.27	70.6		48.27		.75		505.0	.75	92.27	870.0			1335.6			1899.3	-75	158.27	2562.1		179'66	
2.00	4.89	2.44		26.88	74'0			244 4			514.0	38.00	92.89	882.5	47.00	114.88	1350.0	56.00	136.89	1916.4	65.00	158.89	2581.9	74'00	180.88	3346
'25	5.20	3.09	'25		77.3		49'50		'25		522.7	.25		894'1	'25	112.20	1364'3	.22	137.20	1933.6	'25	159.50	2601.8	.25	181.20	3369
.20	6.11	3.82		28.11	80.8		50'11		:50		531.8	.20		905.8			1378.8			1950.8	-		2621.8	.20	182.11	3391
3.00	7:33	5'49	.75 12.00			51.00	50.42		.75 30.00		540.8	39.00	94.72	917.6			1393.3	75	138.71	1968.1	.75	160.41	2641.8 2662.0	.75	182'72	3414
.25	7.94	6.45		29'94			51'94		25		249 9	.25		941.4		117.94		57.00	139 33	2002 9	.32	161.33	26821		183.33	
.20	8.54	7.48		30.22				282.5		74.55	568.5	.20		953.5			1437.4			2020.4			2702'4		184.22	
'75	9.19	8.29		31.19			53.19		'75		577.7	'75	97.16	965.6	'75	119.19	1452'3	.75	141'16	2038.0	'75	163.16	2722.8	.75	185'16	3506
4.00	9.77	9.78						295.8			587.3	40.00		977.7	49.00	119.77	1467.2	58.00	141.78	2055.7	67.00	163.77	2743'2	76.00	185'77	3529
	11.00			32.38	111.4		54.38	302.5	50	76.38	596.7	.25	98.38	990'0		120.38			142.38			164.38		'25	186.38	3553
	11.91				115.2			316.5	75		615.9	.20 .75		1014'8		121.00				2091.3			2784°3 2805°0	.20	187.60	3576
	12.22				119.8				32.00		625.8	41.00					1527.8							77:00	188.25	3599
.25	12.83	16.8	'25	34.83	124'1	.25	56.83	330.3	'25	78.83	635.5	.25	100.83	1039.8	'25	122.83	1543'1		144.83				2846.5	'25	188.83	3646.5
	13'44				128.2		57.44		.20		645.2		101.44		. 50	123'44	1558.2			2163.4			2867.4		189.44	
	14.05		75	36.66	132.9	75	58.05	344.6	75	80.02	655.3		102.02				1574.0		146.05				2888.4		190.02	
	15.27			37.27			59.27		25	81'27	665.5	42 00	103.27	1000.8	51 00	124 00	1589 5		140.00				2909.5		190'66	
	15.88			37.88			59.88			81.88	685.7		103.88			125.88			147.88				2930 0	.20	191.52	2765
	16.49		'75	38.49	151.6	'75	60.49	374'3	.75	82.49	696.1		104.49			126'49			148.49				2973'0		192'49	
	17.11				156.4	25.00	61.11	381.0					102.11					61.00	149.11				2994.4			
	17.72			39.72			61.72			83.72	716.8		105.42			127.72			149.72				3015.8		193'72	
	18.33			40'33			62.33		.20 .72	84.33	727.4		106.32			128.33	1684.3		150.33			172'33			194'33	
	19.55					56.00			35.00		748.6		107.55						150.94				3058.9		194.94	
	20.16			42.17	181 9		64.16		.25	86.19	759'3		108.19				1732.8		152.19				3105.3	00 00	193 33	3911
	20.77		.20	42.78	187.1	.20	64.77	429'I	.20	86.77	770'I	.20	108.77	1210'1			1749'1		152.77				3124'0		-	
'75	21,38	46.8	'75	43'39	192.2	'75	65.38	437'2	'75	87.38	781.0	'75	109.38	1223.8	'75	131,38	1765.2	'75	153.38	2406.5	'75	175.38	3146.0			

To find the cubical content of a Cutting or Embankment of any length, add together the figures in Columns B corresponding to the depths of the Cutting or heights of the Embankment for each chain length, with the proportions due to fractions of a chain, as given below, and multiply their sum by the width of formation in feet. Adopt the same course with regard to Columns CC, multiplying the sum by the proper multiplier for the slope or slopes. Add together the two results. If the two slopes differ in inclination, the figures for each must be added separately, and each sum multiplied by its own multiplier, the two results being then added to that obtained from Column B.

For portions less than 66 ft. in length, the result requires modifying as follows:-Move the decimal point two figures to the left, and multiply by the length in links.

Note.—In sidelong ground, a horizontal equating line must be drawn to give the height.

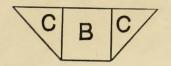
N.B.—The table can be used for compound slopes.

RTHWORK TABLES.

625,12 B85h

BUCK, M. Inst. C. E.

100 FEET CHAIN.



Column A contains the Depths of Cutting or Heights of Embankment.

", B ", Cubical Content of the Central Part, one foot in width, for 100 feet in length.

", CC ", ", ", Two slopes \(\frac{1}{4} \) to 1, ", ", "

To find the total content of Cutting or Embankment 100 feet in length; multiply B by the width of formation in feet; multiply CC by the proper multiplier given below; add together the two results.

MULTIPLIERS.	MULTIPLIERS.	Multipliers.	MULTIPLIERS.	MULTIPLIERS.	MULTIPLIERS.	Multipliers.	Multipliers.
0 4		One Two Slopes. 1\frac{1}{4}\to 1 3'5 7 2 \to 1 4 8 2\frac{1}{4}\to 1 4'5 9	$ \begin{vmatrix} 2\frac{1}{2} \text{ to I} & 5 & 10\\ 2\frac{3}{4} \text{ to I} & 5.5 & 1I\\ 3 \text{ to I} & 6 & 12 \end{vmatrix} $	Note Control Control	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	One Two Slopes. 1\frac{5}{5} \text{ to I} 3.25 6.5 1\frac{5}{8} \text{ to I} 4.25 8.5	One Two Slopes. 2\frac{3}{8} \text{ to I } 4.75 9.5 2\frac{2}{8} \text{ to I } 5.75 11.5

						1	1							1	1		1	_				1				
Α	В	CC	Α	В	CC	A	В	CC	Α	В	CC	Α	В	CC	A	В	CC	Α	В	CC	Α.	В	CC	Α	В	CC
	Cubic	Cubic		Cubic	Cubic	-	Cubic	Cubic		Cubic	Cultin		C 1:	0.11	-	- ·		-		-	-					
Ft.	Yards.	Yards.		Yards.	Yards.		Yards.	Yards.	Ft.	Yards.	Cubic Yards.	Ft.	Cubic Yards.	Cubic Yards,	Ft.	Cubic Yards.	Cubic Yards.	Ft.	Cubic Yards.	Cubic Yards.	Ft.	Cubic Yards.	Cubic Yards.	Ft.	Cubic Yards.	Cubic Yards.
0.00				33'33		18.00	66.66	300.0	27.00	100.00	675.0	36'00	133.33	1200'0	45.00			54.00			63.00		3675.0	72:00	266.66	1800.0
*25	0'92	0.09		34.56		*25	67.59	308.3	'25	100.05	687.4	.25	134'26	1216.4	'25	107.29	1895.9	'25	200'92	27250	'25	234.56	3704.5	'25	267.59	4833'3
*50 *75	2.77	0.23		36.11 32.18	83.4			316.8		101.85				1233.2			1916.8		201.85		.20	235.18	3733.5	.20	268.21	4866.8
1,00			10.00				70:36		28:00	102.76				1250.5			1938.0		202.77		75	236.11	3762.9	'75	269.44	4900'4
*25	4.62	1.45	'25	37'95	97.2	'25	71.29	343'2		104.62				1267.6		171.30		55.00	203.69	2826:4	04.00	237.03	3792.4			
.20	5.22	2'08	°50	38.88	102'1		72'21			105.24	752'1			1305.1			2002.1	.22	205.24	2852.0		237.95	3852.0			4968.0
'75	6.47	2.83	'75	39.80	106.9	'75	73.14	361.5	'75	106.47	765.2	'75	139.80	1319.5	.75	173'14	2023.6		206.47				3882.0		273'14	
2'00	7:41	3.69	11.00		I 12'I	20,00	74.08	370.3	29.00	107.41	778.8	38.00	140.4	1337'1	47.00	174.06	2045.4	56.00	207.40	2903.7	65.00	240'74	3912.0	74.00	274.06	5070.3
·25	8.33	4.68 5.79		41.66 42.57			75.00			108.33	791.9		141.66			174.98	2067.1	.52	208,35	2929'7	.22	241.66	3942.1	.25	274.98	5104.2
	10.18	6.08		43.20			75.92 76.85			110.18	805.7 819.4			1372'4			5089.1		209.26				3972.4		275.92	
	11,11	8.32	12.00					408.3		111.11	833.5	30,00	143 51	1390.3	18:00	170.05	2111.0	75	210.14	2982.0	.75	243.50	4002.7 4033.4	75	276.85	
'25	12'03	9.77				'25	78.69	418.0		112'03	847.1	'25	145.36	1426.4	25	178.70	2155.6	37 00	212.03	3000 0					277.77	
							79.62			112.95	861.4		146.29				2177.0									
					150.4	'75	80.22	438.0	.75	113.88	875.3	.75	147.21	1463.0	'75	180.55	2200'4	'75	213.88	3087.0	.75	247.21	1125.4	.75	280.11	8.012
					150.5	22.00	82.30	448'1	31.00	114.80	889.8	40.00	148.14	1481.4	49.00	181.42	2223'0	58.00	214.81	3114.7	67.00	248.14	4156.4	76.00	281'48	5348.0
						.22	82:22	450 3			904-2	25	149.00	1200.0	'25	185,38	2245.0	'25	215.45	3141.7	.22	249'06	4187.4	'25	282:39	5383.3
					70000	.75	84.54	470'1			-				.20	183.33	2208.6							.20	283.33	5418.6
	18:52		14.00									41,00	151.85	1224 0	50.00	185.18	2211.8	75	217 50	3195.7	68:00	250.91	4250.0	75	284.24	5454.1
	19'44	25'4	'25		188.0	.25	86.11	500'4		119'44	962.9	.25	152.77	1575.5	'25	186.11	2338.0	25	210.44	3250.4	'25	252.77	4201 4	77.00	286.11	5489.7
						.20	87.03	511.4		120.36	978.0			1594.5							.20	253.60	43.44.5			
6:00	21.59	30.6			201'4	.75	87.95	255.1	'75	121.59	992.9	'75	154.62	1613.0	'75	187'05	2384.8	.75	221'20	2205.6	*75	251.62	1276.4	*77	287:06	FFORIT
0.00	22.21	33'3			208.4	24.00	88.88	533.3	33.00	122.53	1008.3	42'00	155.24	1633.3	21.00	188.88	2408.3	60,00	222'21	3333.3	69.00	255.55	4408.3	78.00	288.88	5633.3
						.22	00 72	344 4	25	123 14	1023 0	25	150 4/	1052 7	25	199.91	2431.9	25	223'14	3301.1	'25	250.47	4440'3	*25	289.80	5669'4
75	24.98	12.5																			:50	257.39	4472.4			
	25.92		16.00			25.00	92'59	578.6	34.00	125 '02	1070'4	13.00	150.35	1712'1	52:00	191 05	2502.8	61.00	224 90	3417.1						
	26.85			90,18	244.2	.25	93.21	590.3	.25	126.85	1086.1	'25	160.18	1731.0	25	193.52	2527.7	.25	226.85	3445 4	'25	259 20	4537 0			
.20	27.77	52°I				.20	94'44	602.1		127'77			161.09					.20	227.77	3502.0	.20	261.11	4509 4			
					259.7	.75	95.36	513.8	'75	128.70	1118.0	75	162.04	1772.3	.75	105.36	2576:2	.75	228.60	2520.6	'75	262'03	4634.7	'75	295.33	5888.8
					207.6	20.00	90.29	627 6	35.00	129.62	1134'2	44.00	162.95	1792'4	53.00	196.29	2600.8	62.00	229.62	3559.1	71'00	262'95	4667.4	80.00	296.29	5925.9
					2/50	25	9/ 21	37 9	25	130.22	1150.4	25	163.88	1813.0	*25	197'21	2625.4	.25	230.24	3587.9	'25	263.88	4700'4			
																					50	264.80	4733'3			
2	"		, ,		-	13	,, -0		13	32 39	1103 3	13	105 14	1054 2	. 15	199 00	20/5 0	75	232 39	3045-8	75	205.73	4700.7			
.50 .75 4.00 .25 .50 .75 5.00 .75 6.00 .25 .50 .75 7.00 .25 .50 .75 8.00 .25 .50	12'94 13'88 14'80 15'73 16'66 17'59 18'52 19'44 20'36 21'29 22'21 23'14 24'06 24'98 25'92	11.33 13.01 14.82 16.66 18.7 20.9 23.1 25.4 28.0 633.3 36.2 39.0 42.2 445.3 445.3 45.5 66.8	'50 '75 '13 '00 '25 '50 '75 '14 '00 '25 '50 '75 '15 '00 '25 '50 '6 '00 '25 '6	46 · 29 47 · 21 48 · 14 49 · 06 50 · 00 50 · 01 51 · 85 52 · 77 53 · 70 54 · 62 55 · 55 56 · 47 57 · 39 58 · 32 59 · 26 50 · 18 51 · 11 52 · 97 53 · 89 54 · 82	144.6 150.4 150.5 162.6 168.8 175.0 181.5 188.0 194.7 201.4 208.4 215.3 222.4 229.7 236.9 244.5 125.7	*50 *75 22 *00 *75 23 *00 *25 *50 *75 24 *00 *25 *50 *50 *75 25 *00 *75 26 *00 *25 *50 *50 *50 *50 *50 *50 *50 *50 *50 *5	79 62 80 55 81 48 82 39 83 33 85 18 86 11 87 03 87 95 88 88 90 73 91 65 92 59 94 44 95 36	428 · 0 438 · 0 448 · 1 458 · 3 468 · 8 479 · 1 489 · 8 500 · 4 555 · 7 556 · 7 567 · 7 662 · 7 663 · 7 665 · 7	'50 '75 31 '00 '25 '50 '75 32 '00 '25 '50 '75 33 '00 '25 '50 '75 34 '00 '25 '50 '75 35 '00 '25 '50 '75	112.95 113.88 114.80 115.74 116.66 117.58 118.51 119.44 120.36 121.29 122.23 123.14 124.06 124.98 125.92 126.85 127.77	847 1 861 4 875 3 889 8 904 2 918 8 933 2 962 9 978 0 992 9 1054 7 1070 4 1086 1 1118 0 1134 2 11166 8	25 50 75 40 00 25 50 75 41 00 25 50 75 42 00 25 50 75 43 00 25 50 75 43 00 25 50 75 44 00 25 50 75 40 00 25 50 75 41 00 75 41 00 75 75 75 75 75 75 75 75 75 75 75 75 75	145 '36 146 '29 147 '21 148 '14 149 '06 150 '01 150 '91 151 '85 152 '77 153 '69 154 '62 155 '34 155 '34 157 '39 158 '32 159 '26 160 '18 160 '18 162 '95 163 '88 164 '80	1426'4 1444'7 1463'0 1481'4 1500'0 1518'6 1537'6 1555'4 1575'5 1613'9 1633'3 1652'7 1672'4 1692'1 1712'1 1712'1 1731'9 1752'3	25 50 75 49 00 25 50 50 50 25 50 75 51 00 25 50 75 52 00 25 50 75 52 50 75 53 00 25 50 75 50 75 50 75 50 75 50 75 50 75 50 75 50 75 50 75 50 75 50 75 75 75 75 75 75 75 75 75 75 75 75 75	178 '70 179 '62 180 '55 181 '47 182 '39 183 '33 183 '24 185 '18 186 '11 187 '95 187 '95 192 '59 193 '52 194 '44 195 '36 196 '29 197 '21 197 '21 197 '21	2155.6 2177.9 2200.4 2223.0 2245.9 2261.6 2314.8 2338.0 2331.3 2384.8 2408.3 2431.9 2455.7 2479.7 2570.3 8 2503.8 8 2527.7 2570.3 8 2600.8 2600.8	25 50 75 58 50 25 50 75 59 60 60 25 50 75 61 60 25 50 75 61 62 62 50 25 50 75 62 50 25 50 75 75 75 75 75 75 75 75 75 75 75 75 75	212 03 212 96 213 88 214 81 215 72 216 66 217 58 218 51 219 44 220 36 221 29 222 21 223 14 224 98 225 92 226 85 227 77 228 68	3034.7 3061.2 3087.9 3114.7 3141.7 3141.7 3250.4 3277.9 3223.0 3250.4 3277.9 3305.6 3333.3 3361.1 3389.1 3445.7 3445.7 3520.0 3530.6 3530.6 3530.6 3530.6	25 50 750 750 750 750 800 25 50 750 750 750 750 750 750 750	245 '36 246 '29 247 '21 248 '14 249 '06 250 '00 250 '91 251 '85 252 '77 253 '69 254 '62 255 '55 256 '47 257 '39 258 '32 259 '26 260 '18 261 '11 262 '03 262 '95 263 '88	4063 8 4094 5 4125 4 4156 4 4187 4 4218 6 4250 0 4281 4 4312 9 4344 5 4376 4 4408 3 4472 4 4504 5 4537 0 4667 7 4667 4 4700 4 4773 3	25 50 75 76 00 25 50 77 00 25 50 75 78 00 25 50 75 78 00 25 50 75 78 00 25 50 75 75 75 75 75 75 75 75 75 75	278 · 69 279 · 62 280 · 54 281 · 48 282 · 39 283 · 33 284 · 24 285 · 18 287 · 03 287 · 96 288 · 88 289 · 80 290 · 73 291 · 65 292 · 59 293 · 51 294 · 44 295 · 33	5244 5277 5314 5384 5385 5418 545 555 63 555 66 557 66 557 66 558 66 58 58 58 58 58 58 58 58 58 58 58 58 58

To find the cubical content of a Cutting or Embankment of any length, add together the figures in Columns B corresponding to the depths of the Cutting or heights of the Embankment for each 100 ft. length, with the proportions due to fractions of 100 ft. as given below, and multiply their sum by the width of formation in feet. Adopt the same course with regard to Columns CC, multiplying the sum by the proper multiplier for the slope or slopes. Add together the two results. If the two slopes differ in inclination, the figures for each must be added separately, and each sum multiplied by its own multiplier, the two results being then added to that obtained from Column B.

For portions less than 100 ft. in length, the result requires modifying as follows:—Move the decimal point two figures to the left, and multiply by the length in feet.

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Note.—In sidelong ground, a horizontal equating line must be drawn to give the height.

N.B.-The table can be used for compound slopes.

